J. C. Green, B. R. Heimdal, E. Paasche & R. Moate. Changes in calcification and the dimensions of coccoliths of *Emiliania huxleyi* (Haptophyta) grown at reduced salinities 121–131

Wenche Eikrem and Øjvind Moestrup. Structural analysis of the flagellar apparatus and the scaly periplast in *Chrysochromulina scutellum* sp. nov. (Prymnesiophyceae, Haptophyta) from the Skagerrak and the Baltic 132–153

Book Review 154–155

Society News 156

Published 20 April 1998

VOLUME 37, NUMBER 3, MAY 1998

Kirk E. Apt and Kristen E. Schlech. *Ululania stellata* gen. et sp. nov. (Rhodomelaceae), a new genus and species of parasitic red algae from Hawaii 157–161

Eileen J. Cox. The identity and typification of some naviculoid diatoms (Bacillariophyta) from freshwater or brackish habits 162–175

Donald F. Kapraun and Jason R. Buratti. Evolution of genome size in the Dasycladales (Chlorophyta) as determined by DAPI cytophotometry 176–183

Joanne D. Hall and Steven N. Murray. The life history of a Santa Catalina Island population of *Liagora californica* (Nemaliales, Rhodophyta) in the field and in laboratory culture . . 184–194

Kirsten M. Müller, Robert G. Sheath, Morgan L. Vis, Teresa J. Crease & Kathleen M. Cole. Biogeography and systematics of *Bangia* (Bangiales, Rhodophyta) based on the Rubisco spacer, *rbc*L gene and 18S rRNA gene sequences and morphometric analyses. 1. North America 195–207

J. Cabioch and M. L. Mendoza. *Mesophyllum alternans* (Foslie) comb. nov. (Corallinales, Rhodophyta), a mediterraneo-atlantic species, and new considerations on the *Lithothamnion philippi* Foslie complex 208–221

Masanori Hiraoka, Shigehiro Obata & Masao Ohno. Pigment content of the reproductive cells of *Ulva pertusa* (Ulvales, Ulvophyceae): evidence of anisogamy 222–226

In Memoria 227–232

Announcements 233

Society News 234

List of Reviewers 235–236

Published 24 June 1998

VOLUME 37, NUMBER 4, JULY 1998

T. Horiguchi and T. Yoshida. The phylogenetic affinities of *Myagropsis myagroides* (Fucales, Phaeophyceae) as determined from 18S rDNA sequences 237–245

Kyoko Hagino and Hisatake Okada. *Gladiolithus striatus* sp. nov. (Prymnesiophyceae), a living coccolithophore from the lower photic zone of the Pacific Ocean 246–250

Susan J. Babuka and Curt M. Pueschel. A freeze-substitution ultrastructural study of the cytoskeleton of the red alga *Antithamnion kylinii* (Ceramiales) 251–258

Dagmar B. Stengel and Matthew J. Dring. Seasonal variation in the pigment content and photosynthesis of different thallus regions of *Ascophyllum nodosum* (Fucales, Phaeophyta) in relation to position in the canopy 259–268

M. C. Villac and G. A. Fryxell. *Pseudo-nitzschia pungens* var. *cingulata* var. nov. (Bacillariophyceae) based on field and culture observations 269–274

Bente Edvardsen and Linda Medlin. Genetic analyses of authentic and alternate forms of *Chrysochromulina polylepis* (Haptophyta) 275–283

Karin Rengefors and Barbara Meyer. *Peridinium euryceps* sp. nov. (Peridiniales, Dinophyceae), a cryophilic dinoflagellate from Lake Erken, Sweden 284–291

Wenche Eikrem and Jahn Throndsen. Morphology of *Chrysochromulina leadbeateri* (Prymnesiophyceae) from northern Norway 292–299

Mary Downes Gastrich, O. Roger Anderson, Sharon S. Benmayor & Elizabeth M. Cosper. Ultrastructural analysis of viral infection in the brown-tide alga, *Aureococcus anophagefferens* (Pelagophyceae) 300–306

Joshua S. Mylne, Michael G. Mason & José R. Botella. Rapid isolation of high-quality RNA from symbiotic dinoflagellates (Research Note) 307–309

Larry B. Liddle, Nelson Carvalho & Alexandre Meinesz. Use of immunofluorescence microscopy to compare small nuclei in two populations of *Caulerpa taxifolia* (Caulerpales, Chlorophyta) (Research Note) 310–312

Erratum 313

Book Reviews 314–317

Published 28 August 1998

VOLUME 37, NUMBER 5, SEPTEMBER 1998

Julio Afonso-Carrillo, Marta Sansón & Javier Reyes. Vegetative and reproductive morphology of *Ganonema lubrica* sp. nov. (Liagoraceae, Rhodophyta) from the Canary Islands . . 319–329

Sang Hee Lee, Taizo Motomura & Terunobu Ichimura. Karyogamy follows plasmogamy in the life cycle of *Derbesia tenuissima*(Chlorophyta) 330–333

K. H. Nicholls. *Amphidiniopsis sibbaldii* sp. nov. (Thecadiniaceae, Dinophyceae), a new sand-dwelling dinoflagellate 334–339

Stephen J. M. Droop. *Diploneis sejuncta* (Bacillariophyta) and some new species from an ancient lineage 340–356

Armando A. H. Vieira, Ana T. Lombardi & Antonio L. Sartori. Release of dissolved organic matter in a tropical strain of *Synura petersenii* (Chrysophyceae) grown under high irradiances 357–362

Satoshi Nagai and Ichiro Imai. Enumeration of bacteria in seawater and sediment from the Seto Inland Sea of Japan that promote sperm formation in *Coscinodiscus wailesii* (Bacillariophyceae) 363–368

Marianne Ellegaard and Yasukatsu Oshima. *Gymnodinium nolleri* Ellegaard et Moestrup sp. ined. (Dinophyceae) from Danish waters, a new species producing *Gymnodinium catenatum*-like cysts: molecular and toxicological comparisons with Australian and Spanish strains of *Gymnodinium catenatum* 369–378

Eduardo Pérez-Rodríguez, Iván Gómez, Ulf Karsten & Félix L. Figueroa. Effects of UV radiation on photosynthesis and excretion of UV-absorbing compounds of *Dasycladus vermicularis* (Dasycladales, Chlorophyta) from southern Spain 379–387

Z. Tukaj, J. Bohdanowicz & A. Aksmann. A morphometric and stereological analysis of ultrastructural changes in two *Scenedesmus* (Chlorococcales, Chlorophyta) strains subjected to diesel fuel oil pollution 388–393

F. Conde, C. López-Mielgo & A. Flores-Moya. The genus *Predaea* (Nemastomataceae, Rhodophyta) in the Alborán Sea (western Mediterranean Sea), with the description of *Predaea pusilla* f. *alboranensis* f. nova. (Research Note) 394–397

Antonio Flores-Moya and Eric C. Henry. Gametophyte and first stages of the sporophyte of *Phyllariopsis purpurascens* (Laminariales, Phaeophyta) (Research Note). 398–401

Book review 402–403

Published 12 November 1998

VOLUME 37, NUMBER 6, NOVEMBER 1998

G. M. Gargiulo, G. Genovese, F. Culoso & F. De Masi. Karyotype analysis of marine and freshwater populations of *Bangia* (Bangiales, Rhodophyta) in Italy 405–411

Aud Larsen and Bente Edvardsen. Relative ploidy levels in *Prymnesium parvum* and *P. patelliferum* (Haptophyta) analyzed by flow cytometry 412–424

Dieter G. Müller, Elisa R. Parodi & Akira F. Peters. *Asterocladon lobatum* gen. et sp. nov., a new brown alga with stellate chloroplast arrangement, and its systematic position judged from nuclear rDNA sequences 425–432

Tse-Min Lee. Changes in activities and properties of biosynthetic enzymes in relation to high temperature–induced proline accumulation in *Gracilaria tenuistipitata* (Gigartinales, Rhodophyta) 433–438

Tse-Min Lee. The role of proline dehydrogenase and Δ^1-pyrroline-5-carboxylate dehydrogenase in the regulation of proline homeostasis in *Gracilaria tenuistipitata* (Gigartinales, Rhodophyta) exposed to high temperature 439–442

L. Collado-Vides, R. E. DeWreede & K.L.D. Milligan. Biomechanical properties of *Udotea* (Halimedales, Chlorophyta) in a Mexican reef lagoon 443–449

Mona Hoppenrath and Malte Elbrächter. *Roscoffia capitata* (Dinophyceae) refound: notes on morphology and biology 450–457

J. Craig Bailey and Robert A. Andersen. Phylogenetic relationships among nine species of the Xanthophyceae inferred from *rbc*L and 18S rRNA gene sequences. 458–466

K. J. Saxby-Rouen, B.S.C. Leadbeater & C. S. Reynolds. The relationship between the growth of *Synura petersenii* (Synurophyceae) and components of the dissolved inorganic carbon system 467–477

Heiko Sawitzky, Stefan Gleissberg & Sigrid Berger. Phylogenetic implications of patterns of cap development in selected species of *Acetabularia*/*Polyphysa* (Dasycladales, Chlorophyta) 478–485

In memoriam 486–488

Book review 489–490

Announcement 491

Society News 492

Subject and Author Indexes 493–498